

CLAIMS

1. An isocyanate composition of use in powder paint applications, characterized in that it
5 comprises a masked isocyanate compound and a nonmasked cycloaliphatic isocyanate compound.

2. A composition as claimed in claim 1, characterized in that said masked isocyanate compound is at least partially aliphatic.

10 3. A composition as claimed in claims 1 and 2, characterized in that said masked isocyanate compound exhibits an aliphatic backbone which comprises, in its backbone, at least one di- or polymethylene linkage.

15 4. A composition as claimed in claims 1 to 3, characterized in that said masked isocyanate compound does not exhibit masked isocyanate functional groups which are carried by an endocyclic cycloaliphatic carbon.

20 5. A composition as claimed in claims 1 to 4, characterized in that said masked isocyanate compound results from a polymethylene diisocyanate monomer, from one of the (co)oligomers of the latter or from one of its (co)oligocondensates.

25 6. A composition as claimed in claim 5, characterized in that said polymethylene diisocyanate

monomer is tetra-, penta- or hexamethylene diisocyanate, substituted at the most once.

7. A composition as claimed in claims 1 to 6, characterized in that said (co)oligomer or (co)oligocondensate comprises one or more imidazolidinedione, isocyanuric, biuret, allophanate or polyol carbamate functional groups.

8. A composition as claimed in claims 1 to 7, characterized in that said nonmasked cycloaliphatic isocyanate exhibits a Tg at least equal to approximately 40°C.

9. A composition as claimed in claims 1 to 8, characterized in that said cycloaliphatic isocyanate is an oligomer of a cycloaliphatic monomer.

10. A composition as claimed in claims 1 to 9, characterized in that said cycloaliphatic isocyanate results from the homo- or from the heterotrimerization of a cycloaliphatic monomer.

11. A composition as claimed in claims 1 to 10, characterized in that at least one, advantageously two, isocyanate functional group is distant from the closer ring by at most one carbon and is preferably connected directly to it.

12. A composition as claimed in claims 1 to 11, characterized in that said nonmasked isocyanate compound exhibits at least one, advantageously two,

isocyanate functional group is chosen from secondary, tertiary or neopentyl isocyanate functional groups.

13. A composition as claimed in claims 1 to 12, characterized in that the (FI/MI) ratio by mass of the free isocyanate compound to the masked isocyanate compound is at least equal to 0.1, advantageously to 0.2, preferably to 0.3.

14. A composition as claimed in claims 1 to 13, characterized in that the ratio (in equivalents) of the free isocyanate functional groups to the masked isocyanate functional groups is at most equal to approximately 1, advantageously to 1.0, preferably to 0.7.

15. A process for the preparation of a composition as claimed in claims 1 to 14, characterized in that the free isocyanate is mixed in the molten masked isocyanate.

16. The use of cycloaliphatic compounds with a glass transition temperature (T_g) at least equal to 40°C for raising the glass transition temperature (T_g) of masked aliphatic isocyanate.

17. The use of a composition as claimed in claims 1 to 15 as ingredient of a coating, advantageously in the powder form.